



Commonwealth of Massachusetts  
Executive Office of Energy & Environmental Affairs

## Department of Environmental Protection

Southeast Regional Office • 20 Riverside Drive, Lakeville MA 02347 • 508-946-2700

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March 27, 2015

Mr. James A. Stott  
S.M. Lorusso and Sons Inc.  
331 West Street  
Walpole, MA 02081

**RE: WALPOLE**  
Transmittal No.: X260294  
Application No.: SE-15-003  
Class: *SM-25*  
FMF No.: 360865  
**AIR QUALITY PLAN APPROVAL**

Dear Mr. Stott:

The Massachusetts Department of Environmental Protection ("MassDEP"), Bureau of Air and Waste, has reviewed your Limited Plan Application ("Application") listed above. This Application concerns the operation of a nonmetallic mineral processing (crushing) plant at your existing Plant located at 331 West Street in Walpole, Massachusetts ("Facility").

This Application was submitted in accordance with 310 CMR 7.02 Plan Approval and Emission Limitations as contained in 310 CMR 7.00 "Air Pollution Control," regulations adopted by MassDEP pursuant to the authority granted by Massachusetts General Laws, Chapter 111, Section 142 A-J, Chapter 21C, Section 4 and 6, and Chapter 21E, Section 6. MassDEP's review of your Application has been limited to air pollution control regulation compliance and does not relieve you of the obligation to comply with any other regulatory requirements.

MassDEP has determined that the Application is administratively and technically complete and that the Application is in conformance with the Air Pollution Control regulations and current air pollution control engineering practice, and hereby grants this **Plan Approval** for said Application, as submitted, subject to the conditions listed below.

Please review the entire Plan Approval, as it stipulates the conditions with which the Plant owner/operator ("Permittee") must comply in order for the Plant to be operated in compliance with this Plan Approval.

## **1. DESCRIPTION OF PLANT AND APPLICATION**

S.M. Lorusso and Sons, Inc. (“the Permittee”) operates two (2) non-metallic processing (crushing) plants (“the Facility”) located at 331 West Street in Walpole, MA. The Facility began removing gravels in 1947. The first crushing plant was built in 1952. The Facility produces crushed stone, gravel and sand of various sizes. Raw materials are crushed, screened, and stored on site. The Limited Plan Application was submitted, as required by the Notice of Non-Compliance (NON-SE-14-9023-7) dated October 15, 2014, to address emissions of Particulate Matter (PM) resulting from increased process operations at the Facility.

The Facility consists of two distinct emission units (EUs): the Gravel Plant (identified herein as EU-1) and the Rock Plant (identified herein as EU-2). EU-1 includes a jaw crusher, two (2) cone crushers, and a series of screens and conveyors. EU-1 is capable of processing up to 600 tons per hour. The end product from EU-1 is segregated materials that are delivered to the stock piles according to size through a series of conveyors. EU-2 includes a jaw crusher, a cone crusher, a feeder (table) and a series of screens and conveyors. EU-2 is capable of processing up to 350 tons per hour. The end product from EU-2 is materials that are either conveyed to a stock pile or to a finish screen for final sorting into graded storage bins. It is estimated that both plants combined operate approximately 5,700 hours per year. Both plants run on line power.

A wet dust suppression system is installed on the emission units to minimize PM emissions from the operation. The system consists of fog nozzles located at crusher discharges and various belt conveyor transfer points. In addition, the crusher outlets are shrouded and the Facility is hosed down with water as needed to minimize the amount of accumulated dust on the Facility.

The Facility operates several fuel burning units (space heaters) that utilize No. 2 fuel oil. Each of these units has a heat input capacity of less than 10 Million British Thermal Unit per hour (MMBtu/hr) and are therefore exempt in accordance with 310 CMR 7.02(2)(b)15.

Fugitive particulate emissions from roadway dust and noise emissions will be minimized via Dust Control Plan (see Special Conditions of the Plan Approval).

The Permittee has indicated that the Facility is subject to 40 CFR Part 60, Subpart OOO – Standards of Performance for Nonmetallic Mineral Processing Plants. Since MassDEP has not accepted delegation for Subpart OOO for sources which are not subject to 310 CMR 7.00 Appendix C, the Permittee is advised to consult with EPA Region 1 at 5 Post Office Square, Suite 100, Boston, MA 02109-3912, telephone: (617) 918-1111. Other applicable requirements may include notification, record keeping, and reporting requirements.

## 2. EMISSION UNIT (EU) IDENTIFICATION

Each Emission Unit (EU) identified in Table 1 is subject to and regulated by this Plan Approval:

Table 1			
EU#	Description	Design Capacity	Pollution Control Device (PCD)
EU-1	<u>Gravel Plant:</u> <ul style="list-style-type: none"> <li>• Primary Crusher – Nordberg VB 0806 Jaw Crusher, 25” x 30”</li> <li>• Cone Crusher – Nordberg (Symons), 4.25 STD</li> <li>• Cone Crusher, Sandvik, H3800</li> <li>• Screen #1, Allis Chalmers, 4’ x 12’</li> <li>• Screen #2, Hewitt Robins, 4’ x 6’</li> <li>• Screen #3, Simplicity 3616, 6’ x 16’ triple deck</li> <li>• Screen #4, Linatex, VD-18, 6’ x 12’ single deck</li> <li>• Screen #5, Allis Chalmers, 4’ x 14’ triple deck</li> <li>• Conveyors (#1 through #11)</li> </ul>	<u>Max. raw material production:</u> Rate: 600 tons per hour	Wet Dust Suppression System, shroud at crusher outlets
EU-2	<u>Rock Plant:</u> <ul style="list-style-type: none"> <li>• Primary Crusher – Hewitt Robins Jaw Crusher, 42” x 48”</li> <li>• Cone Crusher – Nordberg, 1560 STD</li> <li>• Feeder (table), Hewitt Robins, 48” x 240”</li> <li>• Screen #1, Deister, 6’ x 16’ triple deck</li> <li>• Screen #2, Deister, 6’ x 16’ triple deck</li> <li>• Conveyors (#1 through #6)</li> </ul>	<u>Max. raw material production:</u> Rate: 350 tons per hour	Wet Dust Suppression System, shroud at crusher outlets

**Table 1 Key:**

EU# = Emission Unit Number      “ = inches  
 # = Number      ‘ = feet  
 Max = Maximum

### 3. APPLICABLE REQUIREMENTS

#### A. OPERATIONAL, PRODUCTION and EMISSION LIMITS

The Permittee is subject to, and shall not exceed the Operational, Production, and Emission Limits as contained in Table 2 below:

<b>Table 2</b>			
<b>EU#</b>	<b>Operational / Production Limit</b>	<b>Air Contaminant</b>	<b>Emission Limit<sup>(2)</sup></b>
EU-1	<u>Mineral processing</u> ≤ 125,000 tons/mo ≤ 1,000,000 tons/yr <sup>(1)</sup>	PM <sub>10</sub>	0.36 tons/mo 2.91 tons/yr
		PM <sub>2.5</sub>	0.04 tons/mo 0.35 tons/yr
		PM	1.01 tons/mo 8.07 tons/yr
EU-2	<u>Mineral processing</u> ≤ 50,000 tons/mo ≤ 400,000 tons/yr <sup>(1)</sup>	PM <sub>10</sub>	0.07 tons/mo 0.57 tons/yr
		PM <sub>2.5</sub>	0.01 tons/mo 0.08 tons/yr
		PM	0.19 tons/mo 1.53 tons/yr
EU-1 and EU-2 (combined)	Operate crushers in accordance with all other applicable regulations or requirements	Visible Emissions (Opacity from fugitive particulate emissions)	<u>Crushers (primary and secondary)</u> Opacity ≤ 10%  <u>Conveyor transfer points and screens</u> Opacity ≤ 7%

**Table 2 Key:**

EU#	= Emission Unit Number		
PM <sub>10</sub>	= Particulate Matter less than or equal to 10 microns in diameter		
PM <sub>2.5</sub>	= Particulate Matter less than or equal to 2.5 microns in diameter		
PM	= Particulate Matter		
tons/hr	= tons per hour	lbs/hr	= pounds per hour
tons/mo	= tons per month	≤	= less or equal to
tons/yr	= tons per year	%	= percent

**Table 2 Notes:**

- 1) "Tons per year" of emissions are based on any consecutive 12-month period.
- 2) The emission factors used to calculate emissions are taken from USEPA AP-42, Section 11.19.2 Crushed Stone Processing (version 8/04).

**B. COMPLIANCE DEMONSTRATION**

The Permittee is subject to, and shall comply with, the monitoring, testing, record keeping, and reporting requirements as contained in Tables 3, 4, and 5 below:

<b>Table 3</b>	
<b>EU#</b>	<b>Monitoring and Testing Requirements</b>
EU-1 EU-2	1. Monitor date and operating hours of the stone crushing operations
	2. Monitor material processed on a monthly basis and a rolling 12-month basis to document compliance status with the maximum monthly and rolling 12-month processing rates and to determine the actual PM, PM <sub>10</sub> and PM <sub>2.5</sub> emission rates specified in Table 2 above.
	3. Visually inspect each wet dust suppression system during daily startup of the Facility to check that all spray nozzles are discharging water and that any necessary corrective measures must be taken immediately.
Facility-Wide	4. The Permittee shall monitor fuel oil purchases such that only fuel oil containing no greater than 0.0015 percent sulfur content by weight is purchased for use in the exempt fuel burning units.
	5. The Permittee shall monitor all operations to ensure sufficient information is available to comply with 310 CMR 7.12 Source Registration.

<b>Table 3 (continued)</b>	
<b>EU#</b>	<b>Monitoring and Testing Requirements</b>
Facility-Wide	6. Monitor visible dust emission (opacity) at all times such that appropriate action can be taken to comply with the limits specified in Table 2 and to prevent a condition of air pollution.
	7. If and when MassDEP requires it, the Permittee shall conduct emission testing in accordance with USEPA Reference Test Methods and regulation 310 CMR 7.13.

**Table 3 Key:**

EU#	= Emission Unit Number
CMR	= Code of Massachusetts Regulations
MassDEP	= Massachusetts Department of Environmental Protection
USEPA	= United States Environmental Protection Agency
PM	= Particulate Matter
PM <sub>10</sub>	= Particulate Matter less than or equal to 10 microns in diameter
PM <sub>2.5</sub>	= Particulate Matter less than or equal to 2.5 microns in diameter

<b>Table 4</b>	
<b>EU#</b>	<b>Record Keeping Requirements</b>
Facility-Wide	1. The Permittee shall maintain adequate records on-site to demonstrate compliance status with all operational, production, and emission limits contained in Table 2 above. Records shall also include the actual emissions of PM, PM <sub>2.5</sub> and PM <sub>10</sub> emitted for each calendar months and for each consecutive twelve month period (current month plus prior eleven months). These records shall be compiled no later than the 15 <sup>th</sup> day following each month. An electronic version of the MassDEP approved record keeping form, in Microsoft Excel format, can be downloaded at <a href="http://www.mass.gov/dep/air/approvals/aqforms.htm#report">http://www.mass.gov/dep/air/approvals/aqforms.htm#report</a>
	2. The Permittee shall maintain records of monitoring and testing as required by Table 3.
	3. The Permittee shall maintain a copy of this Plan Approval, underlying Application and the most up-to-date SOMP for the EU(s) approved herein on-site.
	4. The Permittee shall maintain a record of routine maintenance activities performed on the approved EU(s), PCD(s) and monitoring equipment. The records shall include, at a minimum, the type or a description of the maintenance performed and the date and time the work was completed.

<b>Table 4 (continued)</b>	
<b>EU#</b>	<b>Record Keeping Requirements</b>
Facility-Wide	5. The Permittee shall maintain a record of all malfunctions affecting air contaminant emission rates on the approved EU(s). At a minimum, the records shall include: date and time the malfunction occurred; description of the malfunction; corrective actions taken; the date and time corrective actions were initiated and completed; and the date and time emission rates and monitoring equipment returned to compliant operation.
	6. The Permittee shall maintain records to ensure sufficient information is available to comply with 310 CMR 7.12 Source Registration.
	7. The Permittee shall maintain records required by this Plan Approval on-site for a minimum of five (5) years.
	8. The Permittee shall make records required by this Plan Approval available to MassDEP and USEPA personnel upon request.

**Table 4 Key:**

EU#	= Emission Unit Number
PCD	= Pollution Control Device
SOMP	= Standard Operating and Maintenance Procedure
CMR	= Code of Massachusetts Regulations
MassDEP	= Massachusetts Department of Environmental Protection
USEPA	= United States Environmental Protection Agency
PM	= Particulate Matter
PM <sub>10</sub>	= Particulate Matter less than or equal to 10 microns in diameter
PM <sub>2.5</sub>	= Particulate Matter less than or equal to 2.5 microns in diameter

<b>Table 5</b>	
<b>EU#</b>	<b>Reporting Requirements</b>
Facility-Wide	1. The Permittee shall submit to MassDEP all information required by this Plan Approval over the signature of a "Responsible Official" as defined in 310 CMR 7.00 and shall include the Certification statement as provided in 310 CMR 7.01(2)(c).

<b>Table 5 (continued)</b>	
<b>EU#</b>	<b>Reporting Requirements</b>
Facility-Wide	2. The Permittee shall notify the Southeast Regional Office of MassDEP, BAW Permit Chief by email at <a href="mailto:sero.air@state.ma.us">sero.air@state.ma.us</a> or fax 508-947-6557, as soon as possible, but no later than one (1) business day after discovery of an exceedance(s) of Table 2 requirements. A written report shall be submitted to BAW Permit Chief at MassDEP within three (3) business days thereafter and shall include: identification of exceedance(s), duration of exceedance(s), reason for the exceedance(s), corrective actions taken, and action plan to prevent future exceedance(s).
	3. The Permittee shall report every three years to MassDEP, in accordance with 310 CMR 7.12, all information required by the Source Registration/Emission Statement Form. The Permittee shall note therein any minor changes (under 310 CMR 7.02(2)(e), 7.03, 7.26, etc.), which did not require Plan Approval.
	4. The Permittee shall provide a copy to MassDEP of any record required to be maintained by this Plan Approval within 30-days from MassDEP's request.
	5. The Permittee shall submit to MassDEP for approval a stack emission pretest protocol, at least 30 days prior to emission testing, for emission testing as defined in Table 3 Monitoring and Testing Requirements.
	6. The Permittee shall submit to MassDEP a final stack emission test results report, within 45 days after emission testing, for emission testing as defined in Table 3 Monitoring and Testing Requirements.

**Table 5 Key:**

EU# = Emission Unit Number  
 MassDEP = Massachusetts Department of Environmental Protection  
 CMR = Code of Massachusetts Regulations  
 BAW = Bureau of Air and Waste

#### **4. SPECIAL TERMS AND CONDITIONS**

The Permittee is subject to, and shall comply with, the following special terms and conditions:

- A. The Permittee shall comply with the Special Terms and Conditions as contained in Table 6 below:



<b>Table 6</b>	
<b>EU#</b>	<b>Special Terms and Conditions</b>
Facility-Wide	<b><u>DUST CONTROL PLAN</u></b>
	Post speed limits (no greater than 10 mph in any areas within the Facility) in conspicuous areas and enforce daily.
	All loads must be trimmed and covered at an appointed location.
	The water truck must run on all days (weather permitting) to wet the unpaved roadways.
	The mechanical street sweeper must run on all days (weather permitting) without exception. Areas to be swept include the following: <ul style="list-style-type: none"> <li>- The entrance and exit points to the public paved roadways</li> <li>- All paved portions of the Facility</li> </ul>
	DAILY visual inspections must be performed and appropriately recorded.

**Table 6 Key:**

EU# = Emission Unit Number  
 mph = miles per hour

**5. GENERAL CONDITIONS**

The Permittee is subject to, and shall comply with, the following general conditions:

- A. Pursuant to 310 CMR 7.01, 7.02, 7.09 and 7.10, should any nuisance condition(s), including but not limited to smoke, dust, odor or noise, occur as the result of the operation of the Facility, then the Permittee shall immediately take appropriate steps including shutdown, if necessary, to abate said nuisance condition(s).
- B. If asbestos remediation/removal will occur as a result of the approved construction, reconstruction, or alteration of this Facility, the Permittee shall ensure that all removal/remediation of asbestos shall be done in accordance with 310 CMR 7.15 in its entirety and 310 CMR 4.00.

- C. If construction or demolition of an industrial, commercial or institutional building will occur as a result of the approved construction, reconstruction, or alteration of this Facility, the Permittee shall ensure that said construction or demolition shall be done in accordance with 310 CMR 7.09(2) and 310 CMR 4.00.
- D. Pursuant to 310 CMR 7.01(2)(b) and 7.02(7)(b), the Permittee shall allow MassDEP and / or USEPA personnel access to the Facility, buildings, and all pertinent records for the purpose of making inspections and surveys, collecting samples, obtaining data, and reviewing records.
- E. This Plan Approval does not negate the responsibility of the Permittee to comply with any other applicable Federal, State, or local regulations now or in the future.
- F. Should there be any differences between the Application and this Plan Approval, the Plan Approval shall govern.
- G. Pursuant to 310 CMR 7.02(3)(k), MassDEP may revoke this Plan Approval if the construction work is not commenced within two years from the date of issuance of this Plan Approval, or if the construction work is suspended for one year or more.
- H. This Plan Approval may be suspended, modified, or revoked by MassDEP if MassDEP determines that any condition or part of this Plan Approval is being violated.
- I. This Plan Approval may be modified or amended when in the opinion of MassDEP such is necessary or appropriate to clarify the Plan Approval conditions or after consideration of a written request by the Permittee to amend the Plan Approval conditions.
- J. The Permittee shall conduct emission testing, if requested by MassDEP, in accordance with USEPA Reference Test Methods and regulation 310 CMR 7.13. If required, a pretest protocol report shall be submitted to MassDEP at least 30 days prior to emission testing and the final test results report shall be submitted within 45 days after emission testing.
- K. Pursuant to 310 CMR 7.01(3) and 7.02(3)(f), the Permittee shall comply with all conditions contained in this Plan Approval. Should there be any differences between provisions contained in the General Conditions and provisions contained elsewhere in the Plan Approval, the latter shall govern.

## **6. MASSACHUSETTS ENVIRONMENTAL POLICY ACT**

MassDEP has determined that the filing of an Environmental Notification Form (ENF) with the Secretary of Energy & Environmental Affairs, for air quality control purposes, was not required prior to this action by MassDEP. Notwithstanding this determination, the Massachusetts Environmental Policy Act (MEPA) and 301 CMR 11.00, Section 11.04, provide certain “Fail-Safe Provisions,” which allow the Secretary to require the filing of an ENF and/or an Environmental Impact Report (EIR) at a later time.

## **7. APPEAL PROCESS**

This Plan Approval is an action of MassDEP. If you are aggrieved by this action, you may request an adjudicatory hearing. A request for a hearing must be made in writing and postmarked within twenty-one (21) days of the date of issuance of this Plan Approval.

Under 310 CMR 1.01(6)(b), the request must state clearly and concisely the facts, which are the grounds for the request, and the relief sought. Additionally, the request must state why the Plan Approval is not consistent with applicable laws and regulations.

The hearing request along with a valid check payable to the Commonwealth of Massachusetts in the amount of one hundred dollars (\$100.00) must be mailed to:

Commonwealth of Massachusetts  
Department of Environmental Protection  
P.O. Box 4062  
Boston, MA 02211

This request will be dismissed if the filing fee is not paid, unless the appellant is exempt or granted a waiver as described below. The filing fee is not required if the appellant is a city or town (or municipal agency), county, or district of the Commonwealth of Massachusetts, or a municipal housing authority.

MassDEP may waive the adjudicatory hearing-filing fee for a person who shows that paying the fee will create an undue financial hardship. A person seeking a waiver must file, together with the hearing request as provided above, an affidavit setting forth the facts believed to support the claim of undue financial hardship.

Enclosed is a stamped approved copy of the application submittal.

Should you have any questions concerning this Plan Approval, please contact Elza Bystrom by telephone at 508-946-2856, or in writing at the letterhead address.

*This final document copy is being provided to you electronically by the  
Department of Environmental Protection. A signed copy of this document  
is on file at the DEP office listed on the letterhead.*

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Thomas Cushing, Chief  
Permit Section  
Bureau of Air and Waste

C/EB

Enclosure

ecc: Walpole Board of Health  
Walpole Fire Department  
MassDEP/Boston – Y. Tian  
MassDEP/SERO – M. Pinaud  
MassDEP/SERO – L. Black  
Engineering Technologies Group – M. Scholl